

APPENDIX B

Proposed Low Impact Development

Section 4.2A. Low Impact Development

1. Purpose and Intent. The purposes of this Low Impact Development (LID) Bylaw is to:
 - a. Preserve and enhance the Town's character.
 - b. Encourage creative, environmentally sensitive design in residential developments.
 - c. Encourage a more efficient form of development that consumes less open land and protects existing topography and natural features better than a conventional or grid subdivision.
 - d. Protect open space, forestry land, wildlife habitat and corridors, wetlands and water resources, and historical and archeological resources, in a manner consistent with the goals of the Shirley Master Plan.
 - e. Minimize the total amount of disturbance on the site.
2. Applicability.
 - a. For a parcel of ten (10) or more acres of land, or contiguous parcels in common ownership together containing ten (10) or more acres of land on the effective date of this Bylaw, located in the Rural Residential (RR), R-1 or R-2 Districts, the following shall require a Low Impact Development Special Permit from the Planning Board subject to the provisions of this Bylaw:
 - 1) Any subdivision or division into six (6) or more lots of a tract of land, whether comprised of a single parcel or of contiguous parcels held in common ownership on the effective date of this Bylaw or any time thereafter. Developments may not be segmented to avoid compliance with this Bylaw. Accordingly, divisions that would cumulatively result in an increase by six (6) or more residential lots above the number existing twenty-four months earlier shall be subject to the requirements established herein. For purposes of this section, a subdivision or division of land shall mean any division of land subject to G.L. c. 41, Sections 81K-81GG.
 - 2) Any development of six (6) or more dwelling units, except when the development is limited to the conversion of an existing structure and no new construction is proposed.
 - b. The Planning Board shall determine whether the proposed location is suitable for a LID under the terms and provisions of this Bylaw. If the Planning Board determines that the proposed location is suitable for a LID, any further division, subdivision or development of the land shall be accomplished only through the provisions of this Bylaw. Under Subsection 16, Planning Board Decision, the Planning Board may determine that the location is best suited for development as a conventional division or subdivision of land. In such a case, the applicant may then proceed to design and submit a conventional plan in accordance with the Town of Shirley Subdivision Rules & Regulations.
 - c. Nothing in this Bylaw shall prohibit application to do a LID on a parcel or contiguous parcels consisting of less than ten (10) acres in size, or resulting in a division of land into fewer than six lots (6) or consisting of fewer than six (6) new dwelling units.

3. Authorizing a LID. A LID is authorized in two steps.
 - a. LID Concept Special Permit. In accordance with the provisions of this Bylaw, the Planning Board may issue a LID Concept Special Permit approving a schematic representation of the proposed development.
 - b. LID Definitive Plan Approval. Approval of a LID Definitive Plan by the Planning Board is required following approval of the LID Concept Special Permit. The LID Definitive Plan shall include fully engineered plans for the development and shall be designed in conformance with the approved LID Concept Special Permit. For applications that also require approval under the Subdivision Control Law, the Planning Board shall make every effort to consolidate Definitive Subdivision Approval under G.L. c.41, Sections 81K and 81G, with LID Definitive Plan approval pursuant to this Bylaw.
4. Relationship to Subdivision Control. A subdivision plan is not required for a LID, but an applicant who proposes a subdivision plan shall submit the same to the Planning Board in accordance with the Town of Shirley Subdivision Rules & Regulations following approval of a LID Concept Special Permit.
5. Planning Board Regulations. The Planning Board shall adopt LID Definitive Plan and Design Regulations to implement this Bylaw. These regulations may include but shall not be limited to submission requirements, basic site standards, considerations for the placement of common open space, and standards for building placement, architectural design, walkways, landscaping, common or shared driveways, and other elements of the LID Definitive Plan.
6. Future Subdivision. The common open space in a LID may not be further subdivided, and a notation to this effect shall be placed on the plan of record, which shall be recorded at the Registry of Deeds.
7. Permitted Uses. A LID may include the following uses:
 - a. Single-family detached dwellings.
 - b. Townhouse dwellings, not to exceed four dwelling units in a single building.
 - c. Multi-family buildings, not to exceed six dwelling units in a single multi-family building.
 - d. Open space and conservation areas.
 - e. Passive recreation, including trails for walking, hiking, cross-country skiing, horseback riding, and areas for other low-impact activities such as picnicking and wildlife observation.
 - f. Accessory recreational uses, such as a tennis court or playground.
8. Common Open Space; Use, Shape, Location. A LID must provide at least 35% of the total land area as permanently protected open space. The open space shall have no structures, parking, private yards, patios, or gardens. The following additional performance standards apply to the minimum required common open space in a LID:
 - a. The open space shall be undisturbed and left in its natural condition. It shall be appropriate in size, shape, dimension, location, and character to assure its use as a conservation or recreation area and serve as a visual and natural amenity for the development and the Town.
 - b. At least 50% of the required common open space shall be contiguous and linked as a unit, with links no less than sixty (60) feet wide. Access to this largest piece of open space shall be provided to the residents of the Town of Shirley.
 - c. The location(s) of the common open space shall be subject to approval by the Planning Board.
 - d. Not more than 35% of the required common open space in a LID shall consist of marginal or unbuildable areas, flood plain, or wetlands as defined in G.L. c.131, Section 40.

e. Existing rights of way and utility easements may not be counted as common open space.

9. Ownership of Common Open Space. The common open space shall be conveyed in one or more of the following ways, subject to approval by the Planning Board:

a. To a corporation or trust comprising a homeowners association whose membership includes the owners of all lots or units contained in the development.

The developer shall include in the deed to owners beneficial rights in said open land, and shall grant a perpetual Conservation Restriction to the Shirley Conservation Commission or a non-profit corporation or organization over such land to insure that it be kept in an open state and not be built upon for residential use, or developed for accessory uses such as parking or roadways. Such restriction shall be in such form and substance as the Planning Board shall prescribe, and may contain such additional restrictions on development and use of the open space as the Planning Board may deem appropriate, subject to the approval of the Conservation Commission and the Board of Selectmen under the provisions of M.G.L. Ch. 184.

b. To a non-profit organization, the principal purpose of which is the conservation of open space. The developer or non-profit organization shall grant a Conservation Restriction as set forth above.

c. To the Town for open space, a park or water supply use, subject to the approval of the Board of Selectmen for management by the Conservation Commission, with a clause insuring that it be maintained as open space.

10. Dimensional Standards. To maximize the amount of open space, reduce site disturbance and protect significant farmland or scenic landscapes, the Planning Board may waive the minimum requirements for lot area, frontage, yard setbacks, building coverage and other dimensional requirements that would normally apply to land in the applicable zoning district, except as provided below.

a. Irregular lot shapes and shared driveways are permitted in a LID when, in the opinion of the Planning Board, they further the purposes of the bylaw.

b. Lots having reduced area or frontage shall not have frontage on a street other than a street created by the LID.

c. The minimum distance between clusters of townhouse or multiple-unit dwellings shall be fifty (50) feet.

d. The maximum height of proposed buildings shall be thirty-five (35) feet and shall not exceed two and one-half (2½) stories.

e. Rear yard setbacks shall not be waived on lots adjacent to existing residential development.

f. Except as permitted in this Bylaw, any lot in a LID shall comply with all other density and dimensional requirements of the zoning district in which it is located.

11. Base Maximum Density; Determination of Development Capacity. The Basic Maximum Density shall be based on a Yield Analysis that shows the maximum number of single family lots that reasonably could be placed on the site under a conventional subdivision. The maximum number of lots that could be achieved in a conventional subdivision is the Base Maximum Density for a LID. The Yield Analysis shall be prepared and submitted to the Planning Board in accordance with Subsection 14, Application Procedures.

12. Pre-Submission Conference. Applicants seeking a LID Special Permit should request a pre-submission conference or conferences with the Planning Board, and other Boards as appropriate, to review the scope of the project and the site for which it is proposed. Additional pre-submission meetings may be held by mutual agreement of the Boards and the applicant. At a minimum, the intent of these pre-submission conferences shall be to:

a. Identify the key natural features of the proposed development site.

- b. Identify historic or culturally important features of the site.
- c. Identify any safety, traffic, or infrastructure issues directly related to the site.
- d. Identify existing trails on the site or on abutting parcels, and connections thereto.
- e. Identify areas that the Town prefers to see preserved for open space, view shed, wildlife habitat, agricultural or buffer purposes.
- f. Discuss the proposed plan and any issues relative to the Concept Special Permit review criteria.
- g. Discuss any issues relevant to LID requirements and the Planning Board's LID Definitive Plan and Design Regulations.
- h. Assist the developer in understanding all related permitting issues required for the project.
- i. Set a timetable for submittal of a formal application

13. LID Design Process. At the time of the application for a LID Concept Special Permit, the applicant must demonstrate to the Planning Board that the layout of open space, roads and dwelling units in the Concept is based on a design analysis performed by a Registered Landscape Architect according to the following sequence of steps:

- a. Identification of preservation areas. The first step in the design process requires identification and prioritization of possible preservation areas on the site, including wetlands, riverfront areas, and floodplains regulated by state or federal law; unprotected natural landscape features such as steep slopes, mature woodlands, prime farmland, meadows, wildlife habitats and wildlife corridors or connections thereto; and cultural features such as historic and archeological sites and scenic views. To the maximum extent feasible, preservation areas shall include those areas identified during the pre-submission conferences. Every effort shall be made to preserve and improve existing trail networks.
- b. Identification and delineation of the proposed development area. The second step in the design process is to define and delineate the proposed development area, i.e., the area that will contain buildings, roadways, other site improvements and amenities for residents of the development. To the maximum extent feasible, the proposed development area shall consist of land outside the identified preservation areas.
- c. Location of dwelling units. The third step in the design process is to identify and delineate the approximate location of dwelling units in the proposed development area. The location of dwelling units should account for proximity to common open space and other amenities, including community buildings for use by residents of the development. Toward this end, the number of dwelling units with direct access to the amenities of the development should be maximized.
- d. Roads and trails. The fourth step in the design process is to identify and delineate the approximate location of roads and trails. Roads should be aligned to access the dwelling units. The layout of new trails should anticipate internal and external connections to existing and/or potential future roads, trails and sidewalks.
- e. Lotting. The final step in the design process is to identify the approximate location of lot lines if the LID will require a definitive subdivision plan.

14. Application Procedures. An application for a LID Concept Special Permit shall include a Sketch Plan and a Yield Analysis. The size, form, number and contents of the Sketch Plan and Yield analysis shall be set forth in LID Definitive Plan and Design Regulations adopted by the Planning Board and filed with the Town Clerk.

- a. Minimum Required Information for the Sketch Plan. The principal component of the Sketch Plan is a schematic representation of the proposed development, with sufficient detail about existing and proposed conditions to enable the Planning Board and the public to understand what is being proposed and to be able to respond to the applicant's proposals in an informed manner. The Sketch Plan shall include scaled drawings prepared by a Registered Landscape Architect or by a multidisciplinary team under the

supervision of a Registered Landscape Architect. The Sketch Plan shall clearly reflect the design process outlined in Subsection 13: LID Design Process when determining a proposed design for the development. At minimum, a Sketch Plan shall provide the following information:

- 1) The location of the proposed development.
 - 2) The size of the site in acres.
 - 3) Description of the design process that resulted in this Sketch Plan, showing how this process conforms to the one outlined in Subsection 13: LID Design Process.
 - 4) An existing conditions inventory and description of preservation areas identified during the LID Design Process.
 - 5) The total number and approximate locations of the proposed buildings, dwelling units and/or lots, and the approximate size of each in square feet
 - 6) The acreage and proposed use(s) of permanent open space.
 - 7) A statement on the disposition or manner of ownership of the proposed open space.
 - 8) The areas or approximate delineation of lots that will be used as building areas, and the areas or approximate delineation of lots that are to remain as permanent open space.
 - 9) A general description of how drainage will be handled, including a soils statement (soil conservation survey is acceptable) and the general area of the site to be used for stormwater management facilities.
 - 10) Sufficient detail of proposed built and natural features to enable the Planning Board to make the required determinations of Subsection 16 of this bylaw, Planning Board Decision.
 - 11) Appropriate documentation demonstrating the applicant's right to develop the property and showing compliance with Article III, Section 13: Payment of Taxes or Assessments of the Town of Shirley Bylaws.
- b. Required Information for the Yield Analysis. The purpose of a Yield Analysis is to determine the maximum number of lots that could reasonably be achieved in a conventional subdivision layout, given the presence of natural building constraints on the site such as wetlands, floodplains, and steep slopes, as identified on the Sketch Plan. The Yield Analysis may rely on existing data sources, including but not limited to those provided on the Sketch Plan. The applicant shall have the burden of proof with regard to the Basic Maximum Number of lots or dwelling units resulting from the design specifications and assumptions shown on the Yield Analysis.
- c. Sources of Data for the LID Sketch Plan and Yield Analysis. These components of the LID Concept Special Permit Application may be prepared from deed information, USGS topographical maps, FEMA floodplain maps, assessor's maps, orthophotographs, soil maps, Department of Environmental Protection (DEP) Wetlands Conservancy Program maps, and other existing data. The locations of wetlands, streams and forest limits or locations will not be verified during the LID Concept Special Permit process unless the applicant has delineated the same in the field and applies to the Shirley Conservation Commission for review and determination under G.L. c.131 Section 40. For the LID Concept Special Permit application, it is not necessary to verify these constraints, but the applicant must be aware that these locations should be as accurate as possible in order to avoid significant changes to the LID Concept.

After a LID Concept Special Permit application has been submitted, no tree removal, no utility installation, no ditching, grading or construction of roads, no grading of land or lots, no excavation, except for purposes of soil testing, no dredging or filling and no construction of buildings or structures shall be done on any part of the site until the LID Definitive Plan has been approved as provided by these regulations and the perimeter of the open space has been surveyed and staked in the field.

15. Review Process. Whenever an application for a LID Concept Special Permit is filed with the Planning Board, the Planning Board shall, within five working days of the filing of a complete application, distribute copies of the application, accompanying development plan, list of suggested dates and times for site visits, and other documentation, to the Board of Selectmen, Board of Health, Conservation Commission, Building Inspector, Department of Public Works, Police Chief, Fire Chief, and any other board or department deemed appropriate for their consideration, review, and report. The applicant shall furnish the copies necessary to fulfill this requirement. Reports from other boards and officials shall be submitted to the Planning Board within thirty-five (35) days of receipt by the reviewing parties of all of the required materials; failure of these reviewing parties to make recommendations after having received copies of all such required materials shall be deemed a lack of opposition thereto.
- a. The Planning Board shall hold a public hearing on the application in accordance with the requirements of G.L. c.40A, Sections 9 and 11 and applicable sections of the Town of Shirley Protective Zoning Bylaw. The public hearing shall be held within sixty-five (65) days of the filing of a complete application.
 - b. Site Visit. The Planning Board and/or its designee(s) along with members from all interested Boards, Commissions and departments shall conduct a site visit prior to or during the public hearing. At the site visit, the Planning Board and/or its designee(s) shall be accompanied by the applicant and/or its agent(s). With the applicant's permission, interested members of the public shall be made welcome at the site visit.
 - c. Other Information. The submittals and permits of this section shall be in addition to any other applicable requirements of the Town of Shirley Subdivision Rules & Regulations or any other provisions of the Town of Shirley Protective Zoning Bylaw.
16. Planning Board Decision; Approval Criteria. After notice and a public hearing in accordance with G.L. c.40A Sections 9 and 11, and after following the procedures outlined in this Bylaw, the Planning Board shall take one of the following actions within 30 days following the close of the public hearing:
- a. The Planning Board may approve a LID Concept Special Permit with any conditions, safeguards, and limitations, considering the following criteria:
 - 1) The degree to which the design and layout of the proposed LID is better than a conventional development in preserving open space for conservation and recreation, preserving natural features of the land, achieving more efficient provision of streets, utilities and other public services, and providing a high degree of design quality.
 - 2) The degree to which the LID promotes permanent preservation of open space, natural landscapes and vistas, agricultural land, forestry land, existing and proposed trails, other natural resources including water bodies and wetlands, and historical and archeological resources.
 - 3) The degree to which the LID achieves sustainable design through a more efficient form of development that consumes less open land and conforms to existing topography and natural features better than a conventional subdivision.
 - 4) The degree to which the LID reduces the total amount of disturbance on the site.
 - 5) The degree to which the LID furthers the goals and policies of the Shirley Master Plan, as determined by the Planning Board.
 - 6) The degree to which the LID facilitates the construction and maintenance of streets, utilities, and public services in a more economical and efficient manner.
 - 7) The degree to which the LID Concept and its supporting documentation comply with all sections of this Bylaw.
 - b. The Planning Board may deny a LID Special Permit upon finding that the application does not comply with the provisions of this Bylaw.

- c. The Planning Board may find that the location is best suited for a conventional division of land, and authorize the applicant to submit a conventional subdivision plan or a plan for a division of land for five or more lots in accordance with G.L. c.41, Sections 81K to 81GG, inclusive, and the Town of Shirley Subdivision Rules & Regulations.
17. Effect of Special Permit Approval. Approval of a Concept Special Permit application does not constitute approval of any construction. This approval is a preliminary approval, intended to give guidance to the applicant for the development of a Definitive Plan as required by this Bylaw and a definitive subdivision plan where applicable, and to determine whether the proposed concept meets the objectives of the Town, as described in Subsection 16 above.
18. Duration of Special Permit. A LID Concept Special Permit shall remain effective for a period of two years from the date of its approval. In its sole discretion, the Planning Board may grant extensions for good cause shown.
19. LID Definitive Plan Approval. The issuance of a LID Concept Special Permit allows the applicant to submit a LID Definitive Plan to the Planning Board for review and approval in accordance with this bylaw and the LID Definitive Plan and Design Regulations. Any LID Concept Special Permit issued by the Planning Board shall specifically state that the LID Definitive Plan shall substantially comply with the Concept Special Permit and the Planning Board's LID Definitive Plan and Design Regulations. A LID Definitive Plan is not a definitive subdivision plan under the Subdivision Control Law.
- a. No LID Definitive Plan Approval Application may be submitted unless a LID Concept Special Permit has been approved and is currently in effect. The LID Definitive Plan shall be designed to be in conformance with the approved LID Concept Special Permit and the LID Definitive Plan and Design Regulations. If the Planning Board determines that there is a substantial variation between the LID Concept Special Permit and the Definitive Plan, it shall hold a public hearing on the modifications to the LID Concept Special Permit.
 - b. The size, form, number and contents of the LID Definitive Plan Approval Application, together with application or filing fees, shall be as set forth in the LID Definitive Plan and Design Regulations.
 - c. Within five (5) days after receipt of the complete application, the Planning Board shall distribute copies of the application and plans to the Board of Selectmen, Board of Health, Conservation Commission, Building Inspector, Department of Public Works, Police Chief, Fire Chief, and any other board or department deemed appropriate. These departments and officials shall transmit their recommendations and comments, if any, to the Planning Board within 35 days of receipt of the plans.
 - d. The Board shall hold a public hearing within 45 days of the receipt of the complete application. Notice of the time, place and subject matter of the public hearing shall be given by the Planning Board, at the expense of the applicant, by advertisement in a newspaper of general circulation in the town, once in each of two successive weeks, the first publication being not less than 14 days before the day of such hearing, posted with the Town Clerk, and by mailing a copy of such advertisement to the applicant and to all owners of land abutting the land included in such plan as appearing on the most recent tax list, by certified mail at the expense of the applicant.
 - e. The Board shall make its decision within 30 days following the date of the close of the public hearing. If no action is taken within 30 days, the application shall be deemed approved as submitted.
 - f. A LID Definitive Plan will be considered not to comply substantially with the LID Concept Special Permit if the Planning Board determines that any of the following conditions exist:
 - 1) an increase in the number of building lots or dwelling units;
 - 2) a significant decrease in the open space acreage;
 - 3) a significant change in the lot layout;

- 4) a significant change in the general development pattern which adversely affects natural landscape features and open space preservation;
 - 5) a significant change to the storm water management facilities;
 - 6) a significant change in the wastewater management systems; and/or
 - 7) a significant change in the wetland delineation.
- g. The Planning Board may conditionally approve a LID Definitive Plan that does not substantially comply with the LID Concept Special Permit. However, such conditional approval must identify where the LID Definitive Plan does not substantially comply with the LID Concept Special Permit and require that the LID Concept Special Permit be amended to be in compliance with the significant changes identified by the Planning Board.
 - h. No building permit shall be granted for any building in a LID until all documents required, including, but not limited to, the LID Concept Special Permit, LID Definitive Plan, and LID Subdivision Plan, if any, prepared deeds, easements, covenants, and restrictions have been submitted to and approved by the Planning Board. Two building permits or 25% of the total for the project (rounded up), whichever is greater, shall be held by the Planning Board and shall not be granted until all documents, including any easements, covenants, and restrictions, have been recorded in the Registry of Deeds and proof of the recordation is furnished to the Planning Board.
20. Relationship Between the LID Concept and LID Subdivision Plan. There is no presumption that subdivision of the tract will be required to realize the LID Concept, but it is allowed. The issuance of a Concept Special Permit allows the applicant to submit a LID Subdivision Plan to the Planning Board for approval under the Subdivision Control Law.
- a. The requirements for submitting a LID Subdivision Plan shall be in accordance with the Planning Board Subdivision Regulations and LID Definitive Plan and Design Regulations adopted by the Planning Board and filed with the Town Clerk.
 - b. A LID Subdivision Plan will be considered not to comply substantially with the Concept Special Permit if the Planning Board determines that any of the conditions listed in Subsection 19.f exist.
 - c. If the Planning Board determines that the LID Subdivision Plan does not substantially comply with the Concept Special Permit, the Board may disapprove the LID Subdivision Plan for failure to comply with the condition of the special permit requiring that the LID Definitive Plan substantially comply with the Concept Special Permit.